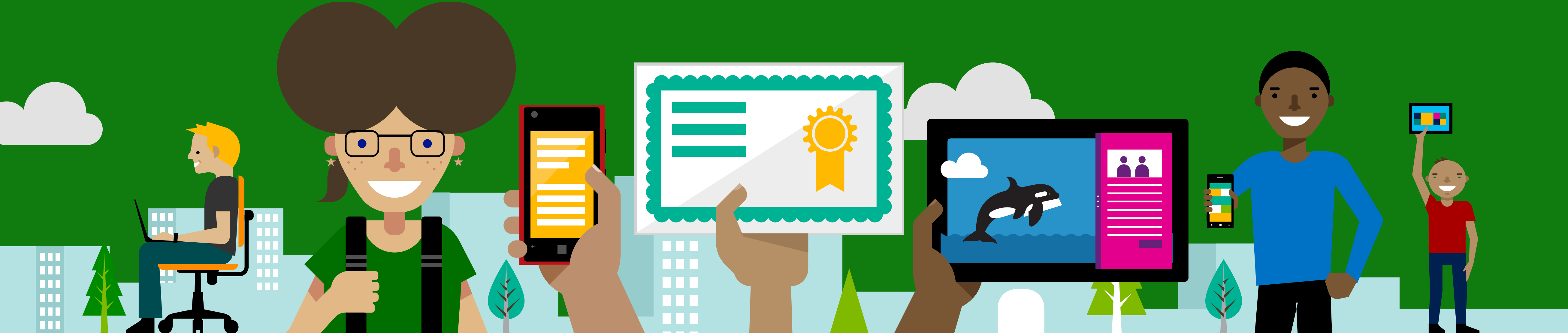
Microsoft

Managing Text Flow by Using CSS

3.3. Manage the flow of text content by using CSS.



Agenda

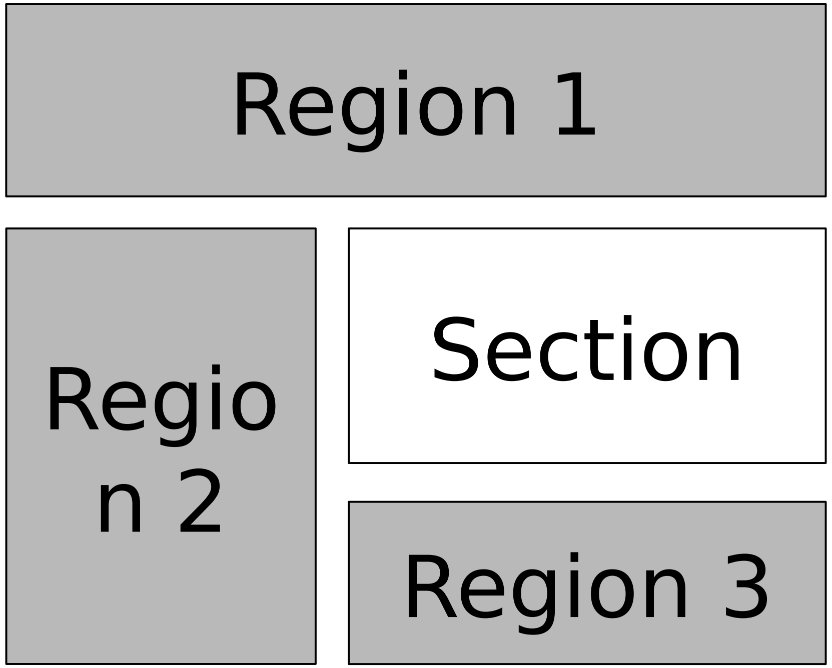
1 CSS Regions

2 Columns and Hyphenation

3 CSS Exclusions

CSS Regions

CSS Regions



- With HTML you can organize content into separate section, but what can you do if you want content to flow from one region to another?
- CSS Regions are sections of a document where content can flow from one region to another
  - If there is too much content in one section, then the remaining content automatically flows into another region
- Regions can be placed anywhere on a screen, as evidenced in the graphic to the right

Implementing CSS Regions

- Creating a CSS Region, you must specify a **content source** and **content containers**
  - You set up CSS regions with the `flow-into` and `flow-from` properties
- A content source is a chunk of text that holds the content you want to flow through the regions
- Content containers are the areas where you want your content to appear
  - You should use a separate HTML document as the source

```
<div id="content"
src="content.html"></div>
<div id="region1" class="region"></div>
<div id="region2" class="region"></div>
<div id="region3" class="region"></div>
```

`flow-from` and `flow-into` Properties

Using an id as a selector, identify the content source using the main value of the `flow-into` property

- This content will require content containers to appear on a Web page

With a specific class as the selector, use the same value used with the `flow-into` property for the value of the `flow-from` property to place content into a container

- This is how the source and content containers are associated

```
#content {
    -ms-flow-into: main;
}

.region {
    -ms-flow-from: main;
    background: #9ACD32;
    width: 150px;
    height: 200px;
    float: left;
    margin: 20px;
}
```

Overflowing Text

The height of a region won’t automatically adjust to fit all content

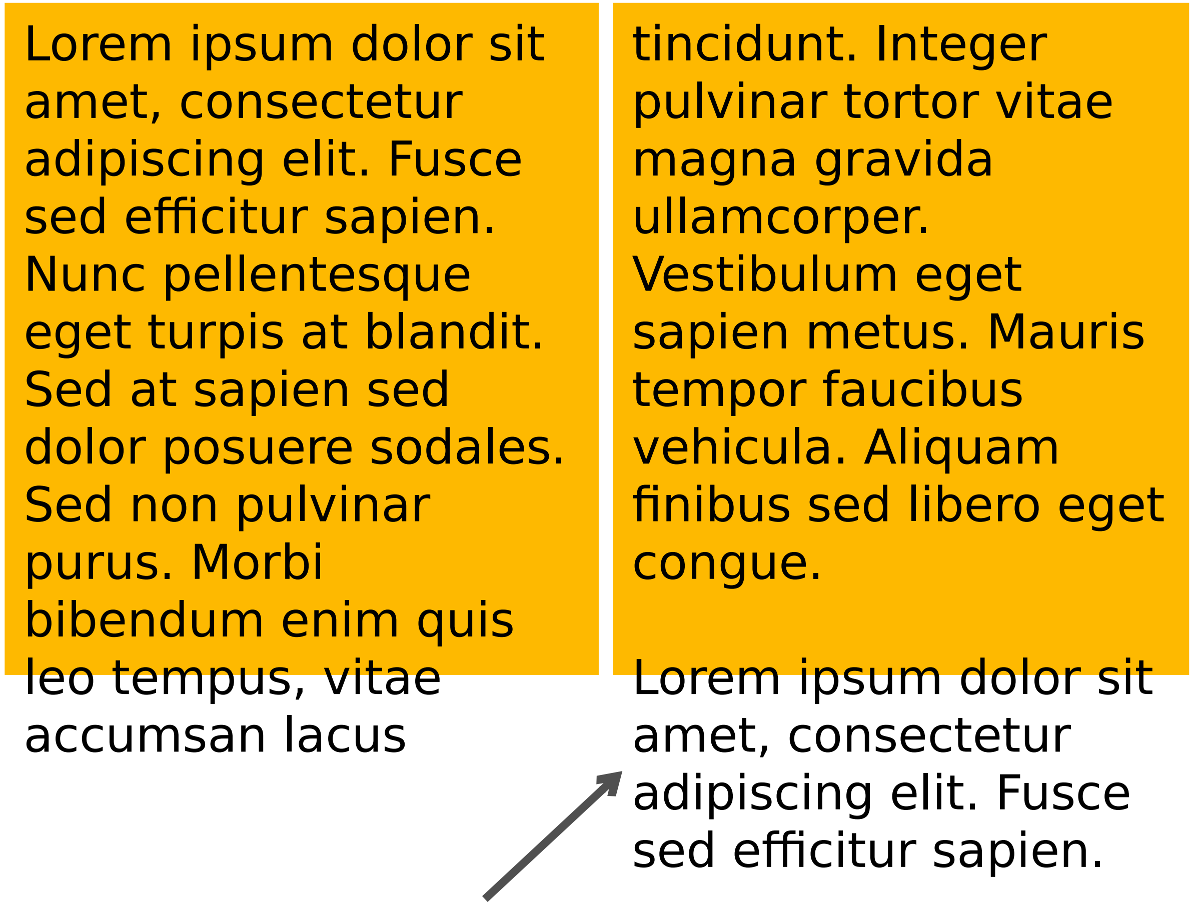
- height of regions must be defined

If there is content available after all regions have been filled, then the last region will:

- be cut off
- visibly overflow
- overflow and be hidden

The `overflow` and `region-fragment` properties can be used to control how overflow content is treated

- set `region-fragment` to `auto` or `break`



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visible overflow

The Microsoft Implementation of CSS Regions

- Instead of using `div` tags to implement CSS regions, Microsoft uses the `<iframe>` element
- An `iframe` is used with unique IDs, as well as the –ms– vendor prefix with the `flow-from` and `flow-into` properties

```
<iframe id="content"
src="content.html"></iframe>
<div id="region1" class="region"></div>
<div id="region2" class="region"></div>
<div id="region3" class="region"></div>
```

CSS Regions in Action

```
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="utf-8" />
        <link href="StyleSheet.css" rel="stylesheet"
type="text/css">

        <title>Overflow Examples</title>
    </head>
    <body>
        <h1>CSS Regions</h1>
        <iframe id="content" src="content.html"></iframe>
        <div id="region1" class="region"></div>
        <div id="region2" class="region"></div>
        <div id="region3" class="region"></div>

    </body>
</html>
```

```
#content {
    -ms-flow-into: main;
}

.region {
    -ms-flow-from: main;
    -ms-region-fragment:
    auto;
    overflow: visible;
    background: #0ff;
    width: 150px;
    height: 200px;
    float:  left;
    margin:  20px;
}
```

Columns and Hyphenation

Creating Columns

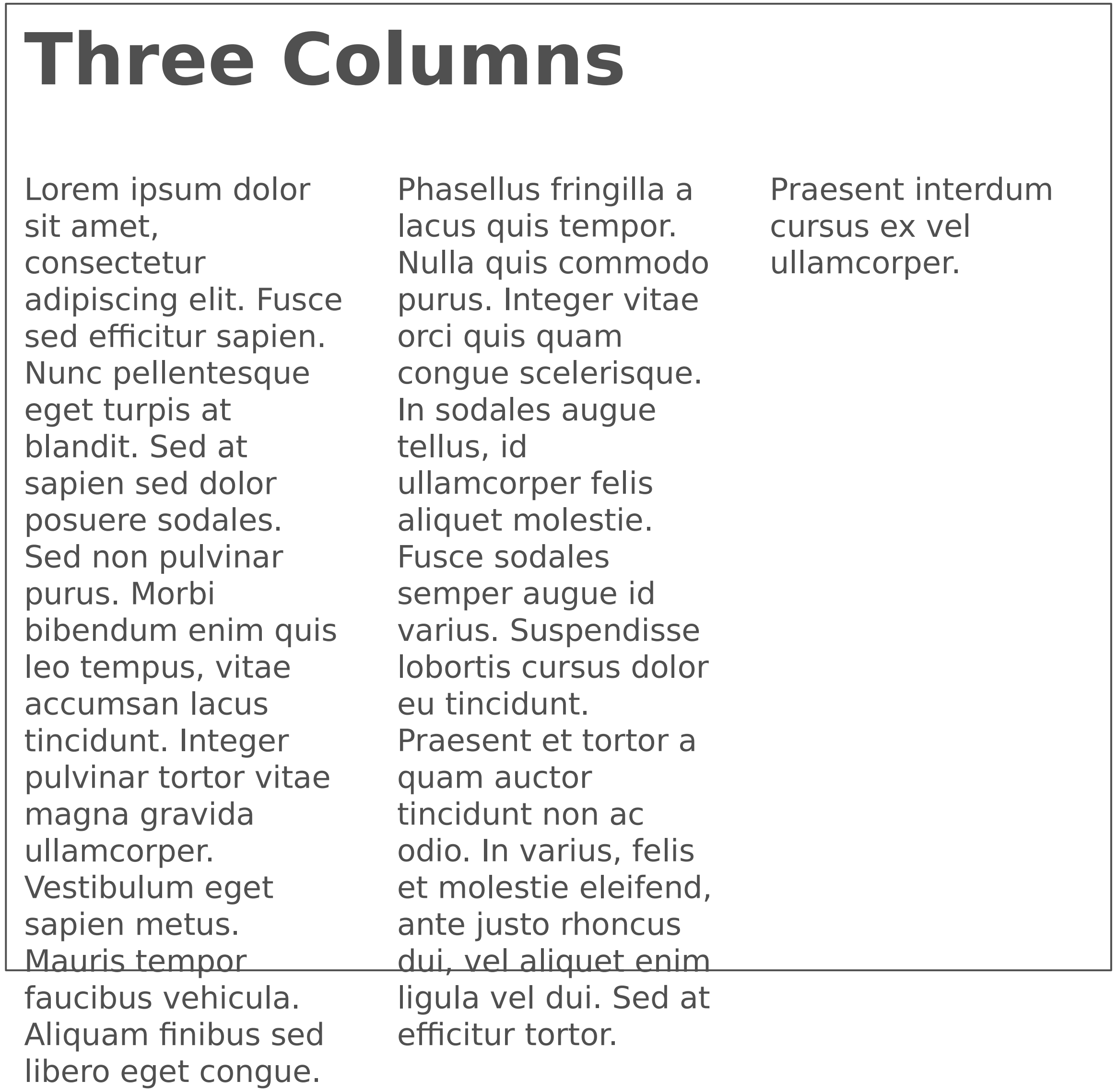
CSS allows you to create columns and divide content among them

- this is called the **multi-column layout**

There are three primary CSS properties that you can use to manipulate columns:

- `column-count`
- `column-gap`
- `column-rule`

In the CSS Box, columns are in between the content and the Box



Three Columns

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Column Properties, pt. 1

PROPERTY	VALUES	DESCRIPTION
break-after	auto always avoid left right page column region avoid-page avoid-column avoid-region	Inserts a break after the generated column box
break-before	(same as break-after)	Inserts a break before the generated column box

Column Properties, pt. 2

PROPERTY	VALUES	DESCRIPTION
break-inside	auto avoid avoid-page avoid-column avoid-region	Inserts a break within the generated column box
column-count	integer auto	Sets the number of columns an element will use
column-fill	auto balance	Specifies how to fill columns; balances content equally between columns, if possible, or fills columns sequentially
column-gap	length normal	Specifies the gap between columns

Column Properties, pt. 3

PROPERTY	VALUES	DESCRIPTION

`column-rule`	`column-rule-width`
	`column-rule-style`
	`column-rule-color`
	`transparent`
		Is a shorthand property that sets the column-rule-width, column-rule-style, and column-rule-color properties at the same place in a style sheet

`column-rule-color`	`color`	Specifies the color of the rule between columns
`column-rule-style`	`border-style`	Specifies the style of the rule between columns, such as solid or double, dashed, and so on
`column-rule-width`	`border width`	Specifies the width of the rule between columns
`column-span`	`none` `all`	Specifies whether an element should span no columns or all columns

Column Properties, pt. 4

PROPERTY	VALUES	DESCRIPTION
`column-width`	`length` `auto`	Specifies the width of a column or columns
`columns`	`column-width` `column-count`	Sets the column-width and column-count properties simultaneously

Using Hyphenation

- If you want text to cover the entirety of a column, then you can enable hyphenation
- Hyphenation is the process of connecting two parts of the same word with a hyphen (-)
- To implement hyphenation, use the hyphens property along with one of three values:
  - `auto`: enables hyphenation
  - `manual`: enables hyphenation
  - none: prevents hyphenation

```
.hyphenized {
    -moz-hyphens: auto;
    -ms-hyphens: auto;
    -webkit-hyphens:
auto;
    hyphens: auto;
}
```

Declaring a Language

- For automatic hyphenation to properly function, you have to declare which language is being used
- To do so, use the <html> tag with the `lang` attribute
  - The value should be set according to the language being used
- Vendor prefixes must also be applied with the hyphens property in CSS for them to work properly

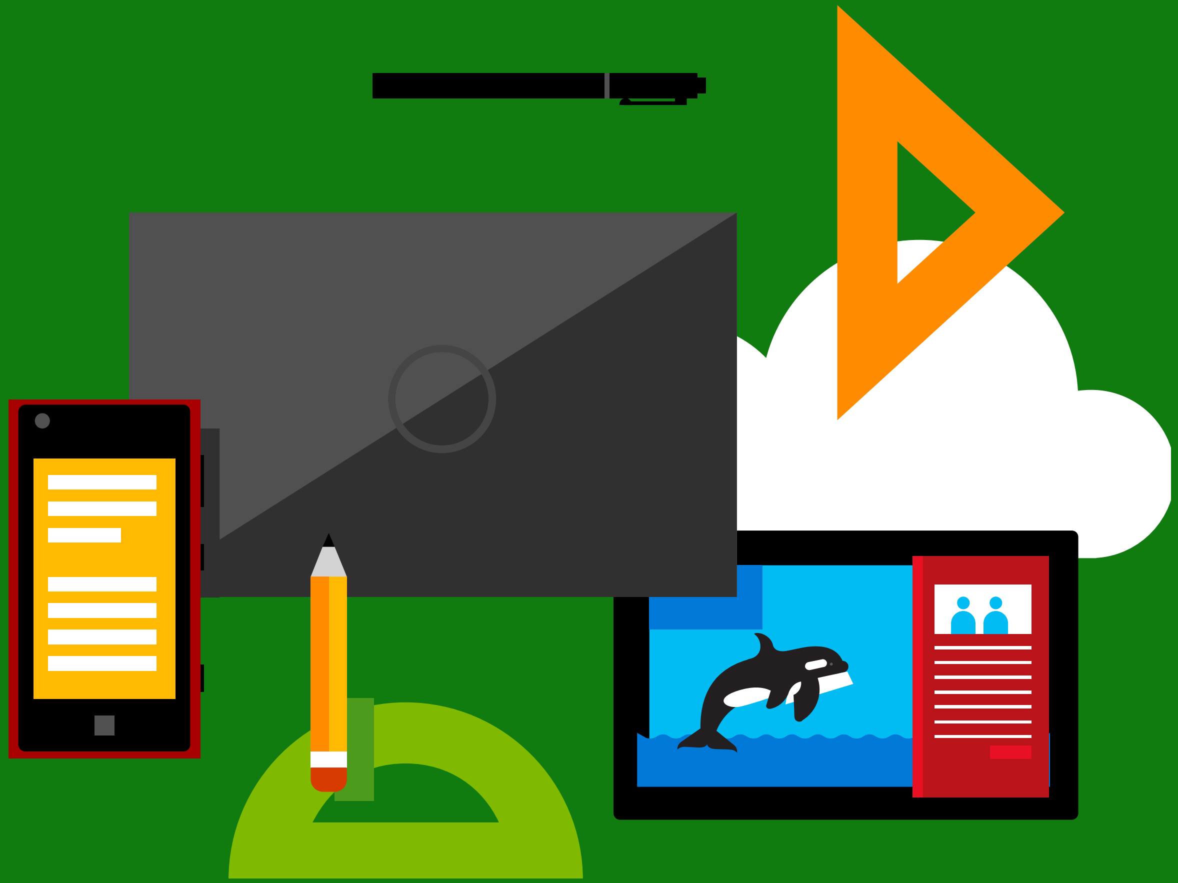
```
<html lang="en">
```

Columns Demo

```html
<h2>Three Columns</h2>
<div class="threeColumns”>
  <p>Lorem ipsum dolor …</p>
  <p>Phasellus fringilla a…</p>
</div>
```

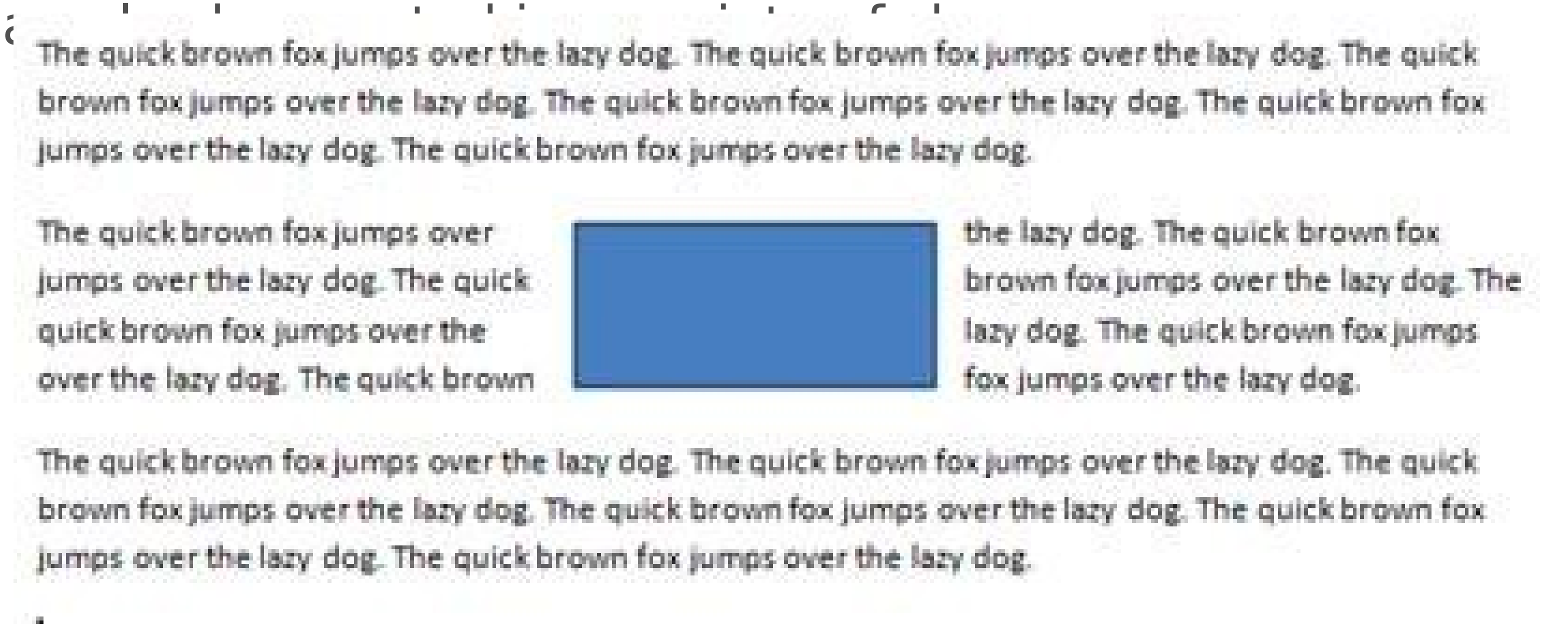
```css
.threeColumns {
    width: 100px;
    -webkit-column-count: 3;
    -moz-column-count: 3;
    column-count: 3;
}
```

CSS Exclusions



CSS Exclusions

- A **CSS Exclusion**, commonly referred to as a positioned float, allows you to place elements in a specific location on a Web page
- After you position the float, other content will wrap around it
- CSS Exclusions allow you to specify positioning from the top, bottom, left, and right of a container
  - Exclusions ca



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Creating CSS Exclusions

- Declare an exclusion by using the `wrap-flow` property with the preferred value
- Modify the shape of an exclusion using the `shape-outside` and `shape-inside` properties
- CSS Exclusions may not be supported by all of the major browsers
  - Use vendor prefixes and experiment with as many browsers as possible to make sure the content renders properly

```
.exclusion {
      -ms-grid-row: 2;
      -ms-grid-column: 2;
      background-color: lime;
      -ms-wrap-flow: both;
      padding: 10px;
      -ms-wrap-margin: 15px;
    }
```

Properties for CSS Exclusions, pt. 1

PROPERTY	VALUES	DESCRIPTION
shape-outside	auto shape url	Creates the general shape of an exclusion
shape-inside	outside-shape auto shape uri	Modifies a shape’s content
wrap	wrap-flow wrap-margin wrap-padding	A shorthand method of setting wrap-flow, wrap-margin, and wrap-padding properties in one declaration

Properties for CSS Exclusions, pt. 2

PROPERTY	VALUES	DESCRIPTION

`wrap-flow`	`auto`
	`both`
	`start`
	`end`
	`maximum`
	`clear`
		Specifies how exclusions affect inline content within block-level elements

`wrap-margin`	`length`	Provides an offset for content outside the element
`wrap-padding`	`length`	provides a pad (offset) for content inside an element
`wrap-through`	`wrap` `none`	Specifies how content should wrap around an exclusion element

More About CSS Exclusions

https://msdn.microsoft.com/en-us/library/hh673558(v=vs.85).aspx

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